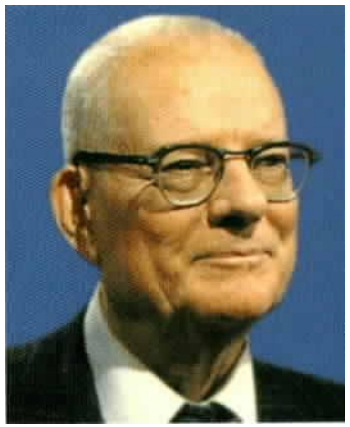
Improving Medical Performance

(Deming's 14 points– Crosby's 14 Steps)



Lecture 3

© Copyright 2015 Executive Education – School of Business The American University in Cairo. All Rights Reserved

Intended Learning Outputs :

By the end of this session, participants should be able to:

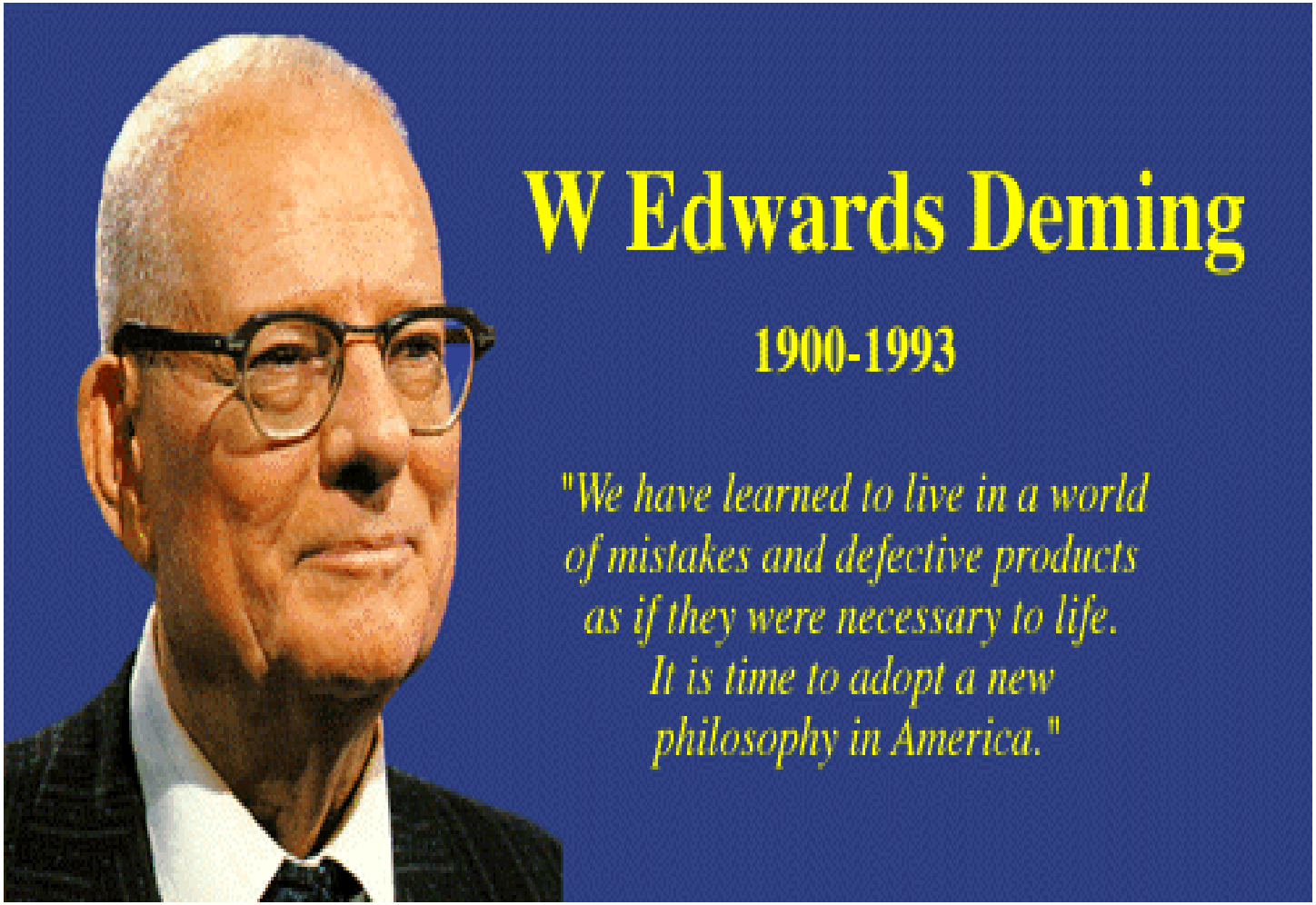
- Identify the work of the quality management pioneers
- Recognize the relations between Deming's 14 Points & Crosby's 14 steps
- Explain the current and evolving healthcare quality management approaches .
- Logistics & Supply Chain Management .

© Copyright 2015 Executive Education – School of Business The American University in Cairo. All Rights Reserved

Deming's Background

- Main architect for introducing Total Quality into Japan
- Born 1900
- Graduated in Electrical Engineering
- PhD in mathematical physics
- Became statistician for US govt.
- Sent by US govt. to Japan after WWII to advise on Japanese census.

© Copyright 2015 Executive Education – School of Business The American University in Cairo. All Rights Reserved


W Edwards Deming
1900-1993
"We have learned to live in a world of mistakes and defective products as if they were necessary to life. It is time to adopt a new philosophy in America."

© Copyright 2015 Executive Education – School of Business The American University in Cairo. All Rights Reserved

Another view of the Quality Chain Reaction:

Improve Quality → Costs decrease because of less rework, fewer mistakes, delays, snags; better use of machine time and materials. → Productiv improves

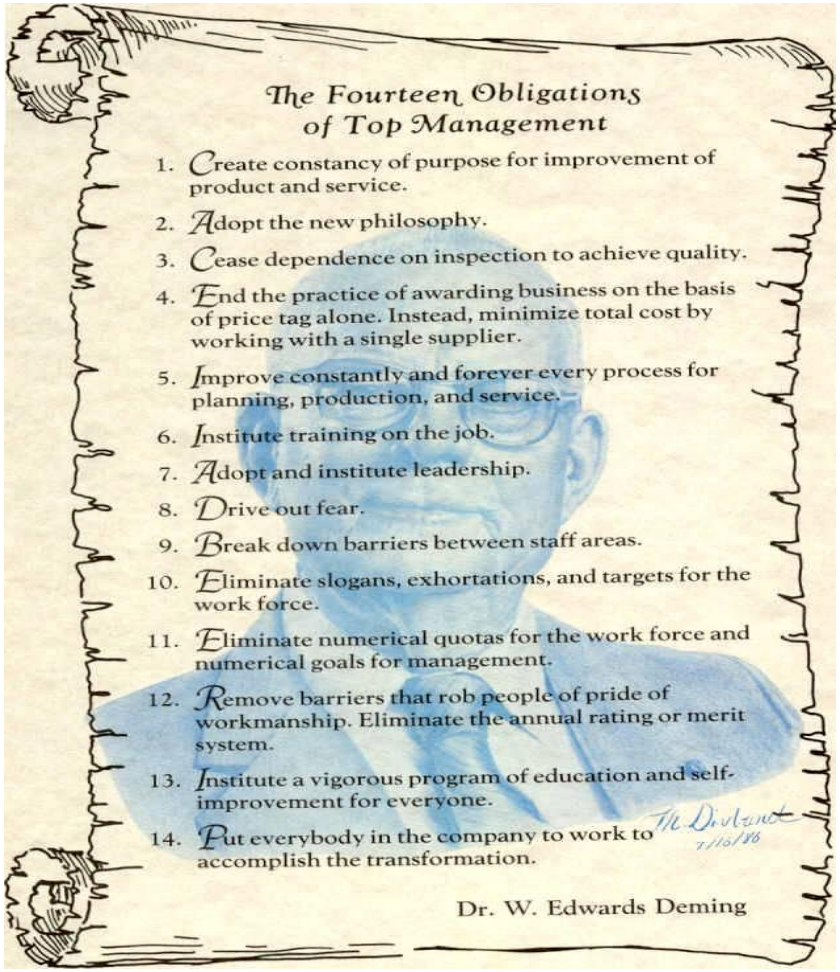
→ Capture the market with better quality and lower price → Stay inbusiness

→ Provide jobs and more jobs

"So simple!"

(Deming)

© Copyright 2015 Executive Education – School of Business The American University in Cairo. All Rights Reserved



The Fourteen Obligations of Top Management

1. Create constancy of purpose for improvement of product and service.
2. Adopt the new philosophy.
3. Cease dependence on inspection to achieve quality.
4. End the practice of awarding business on the basis of price tag alone. Instead, minimize total cost by working with a single supplier.
5. Improve constantly and forever every process for planning, production, and service.
6. Institute training on the job.
7. Adopt and institute leadership.
8. Drive out fear.
9. Break down barriers between staff areas.
10. Eliminate slogans, exhortations, and targets for the work force.
11. Eliminate numerical quotas for the work force and numerical goals for management.
12. Remove barriers that rob people of pride of workmanship. Eliminate the annual rating or merit system.
13. Institute a vigorous program of education and self-improvement for everyone.
14. Put everybody in the company to work to accomplish the transformation.

Dr. W. Edwards Deming

© Copyright 2015 Executive Education – School of Business The American University in Cairo. All Rights Reserved

Condensation of the 14 Points for Management

- **The 14 points for management (Out of the Crisis, Ch.2) in industry, education and government follow naturally as application of this outside knowledge, for transformation from the present Western style of management to one of optimization.**

© Copyright 2015 Executive Education – School of Business The American University in Cairo. All Rights Reserved

Origin of the 14 points:

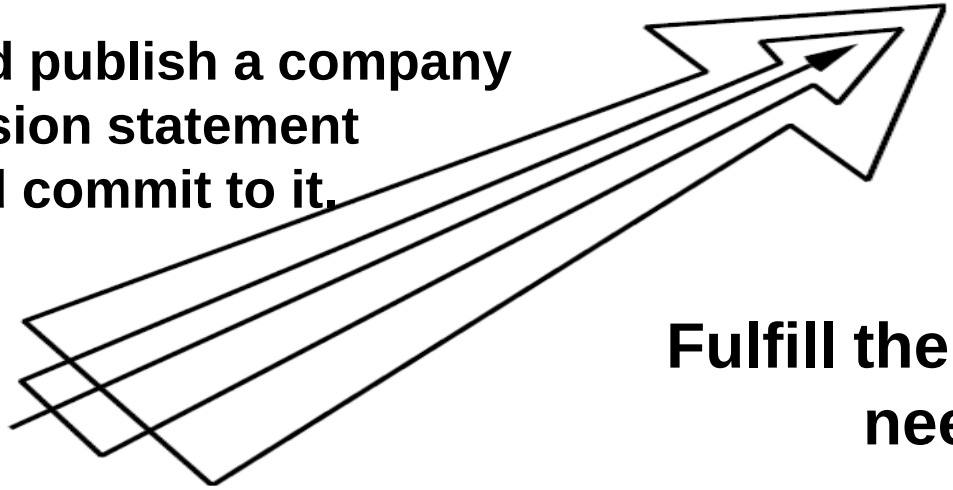
- The 14 points are the basis for **transformation** of American industry.
- It will not suffice merely to solve problems, big or little.
- Adoption and action on the 14 points are a signal that the management **intend to stay in business and aim to protect investors and jobs.**
- Such a system formed the basis for lessons for top management in Japan in 1950 and in subsequent years

© Copyright 2015 Executive Education – School of Business The American University in Cairo. All Rights Reserved

The 14 points.

1. **Create constancy of purpose** toward improvement of product and service, with the aim to become **competitive** and **to stay in business, and to provide jobs.**

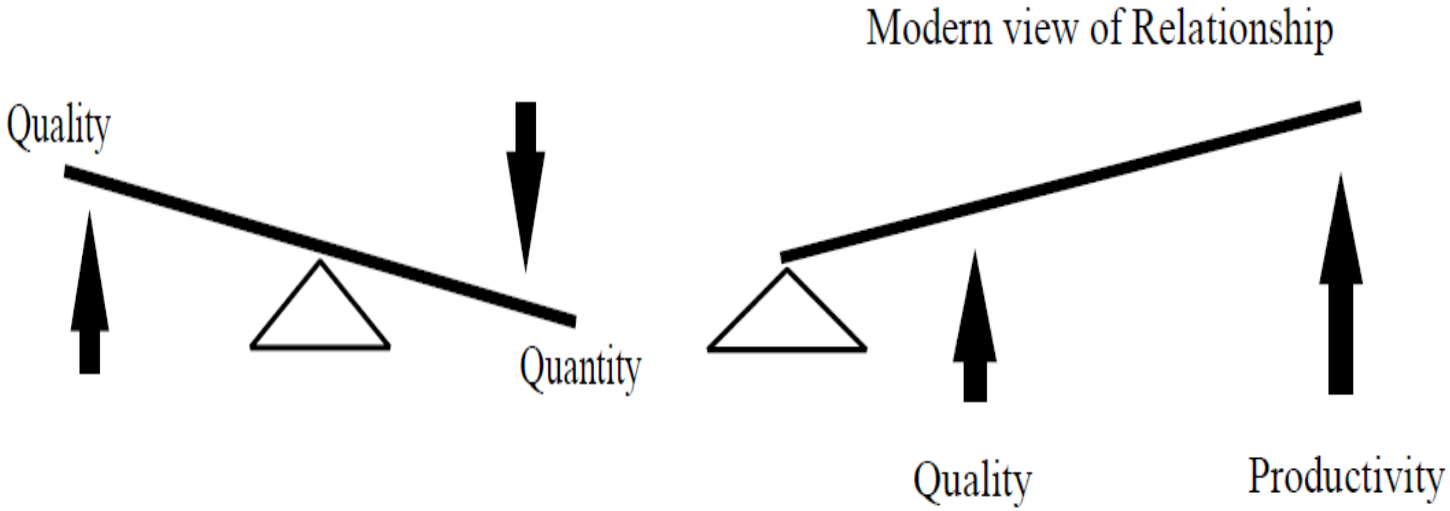
Create and publish a company mission statement and commit to it.



Fulfill the long-term needs.

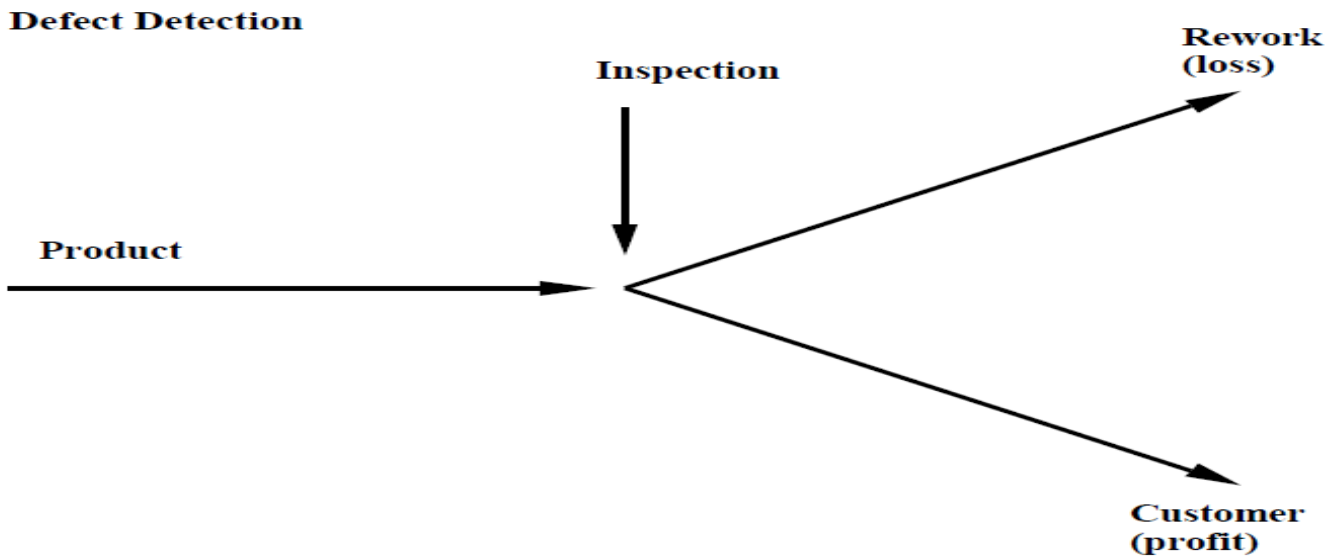
© Copyright 2015 Executive Education – School of Business The American University in Cairo. All Rights Reserved

2. **Adopt the new philosophy. We are in a new economic age**. Western management must awaken to the challenge, must learn their responsibilities, and take on leadership for change.



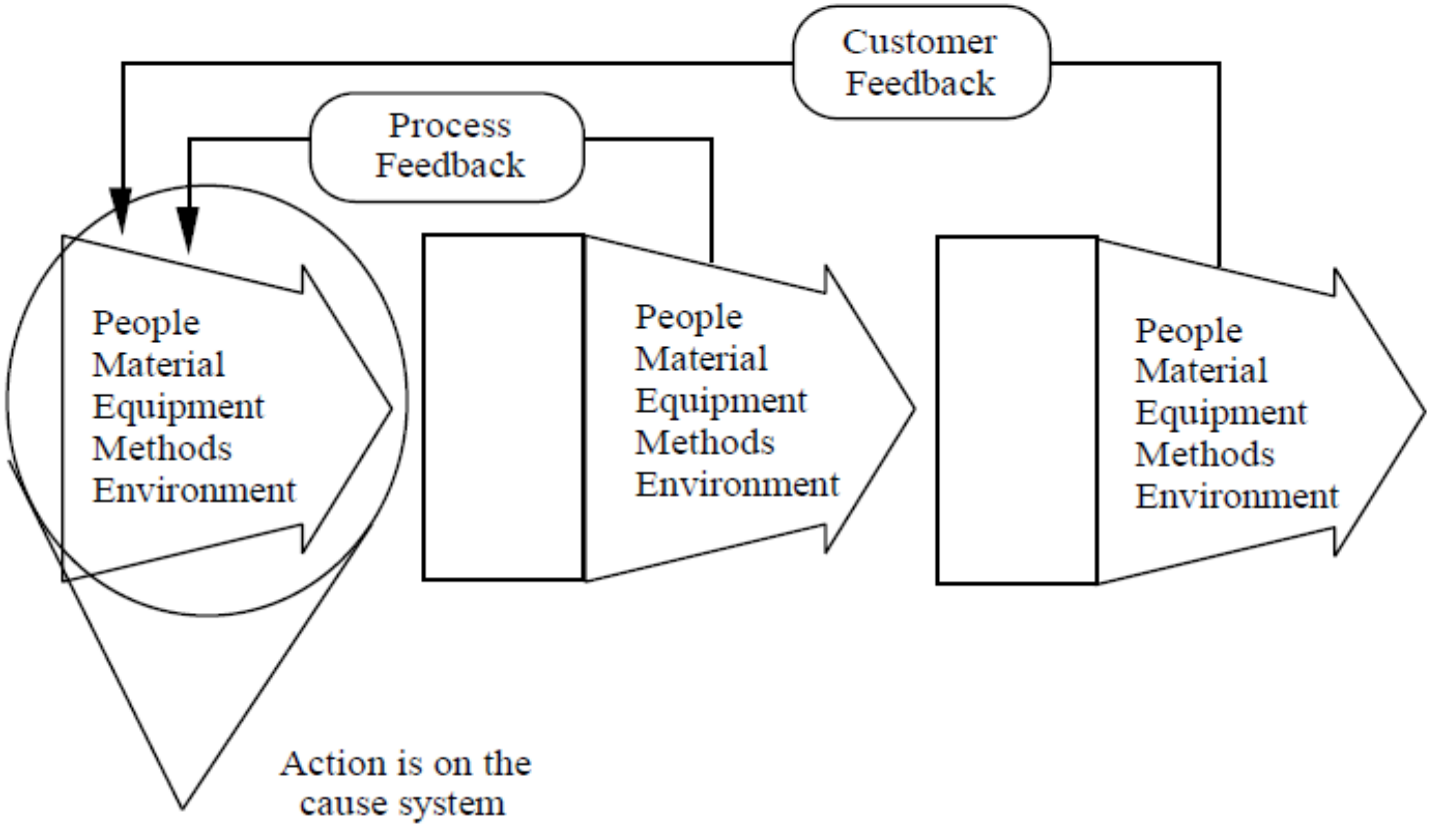
© Copyright 2015 Executive Education – School of Business The American University in Cairo. All Rights Reserved

3. **Cease dependence on inspection to achieve quality**. Eliminate the need for inspection on a mass basis by building quality into the product in the first place.



© Copyright 2015 Executive Education – School of Business The American University in Cairo. All Rights Reserved

A more modern view: Defect prevention, using both process feedback and customer feedback.



© Copyright 2015 Executive Education – School of Business The American University in Cairo. All Rights Reserved

4. **End the practice of awarding business on the basis of price tag**. Instead, **minimize total cost**. Move toward **a single supplier** for any one item, on a long-term relationship of loyalty and trust.

Price has no meaning without quality

© Copyright 2015 Executive Education – School of Business The American University in Cairo. All Rights Reserved

5. **Improve constantly and forever the system** of production and service, to improve quality and productivity, and thus constantly decrease costs.

6. **Institute training on the job**.

© Copyright 2015 Executive Education – School of Business The American University in Cairo. All Rights Reserved

7. **Institute leadership** ; the aim of supervision should be to help people and machines to do a better job. Supervision of management is in need of **overhaul** ترميم, as well as supervision of production workers.

© Copyright 2015 Executive Education – School of Business The American University in Cairo. All Rights Reserved

8. Drive out fear, so that everyone may work effectively for the company .

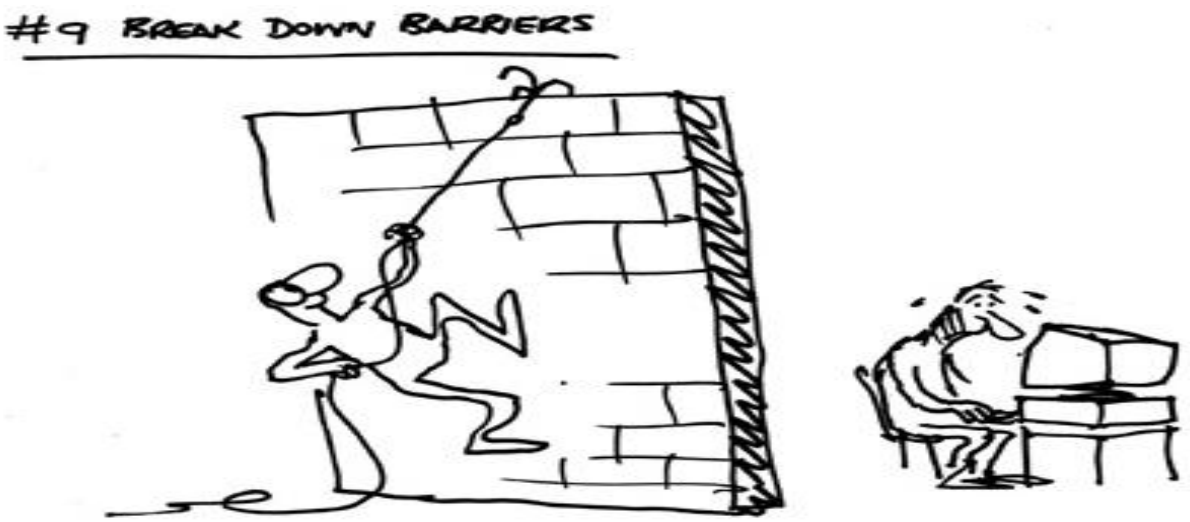
© Copyright 2015 Executive Education – School of Business The American University in Cairo. All Rights Reserved

Some common expressions of fear:

- I am afraid that I may lose my job because the company will go out of business.
- If he does, what will happen to me?
- I could do my job better if I understood what happens next.
- I am afraid that I may not always have an answer when my boss asks me something.
- I am afraid to admit that I made a mistake.

© Copyright 2015 Executive Education – School of Business The American University in Cairo. All Rights Reserved

9. **Break down barriers between departments**. People in research, design, sales, and production must work as a team, to foresee problems of production and in use that may be encountered with the product or service.

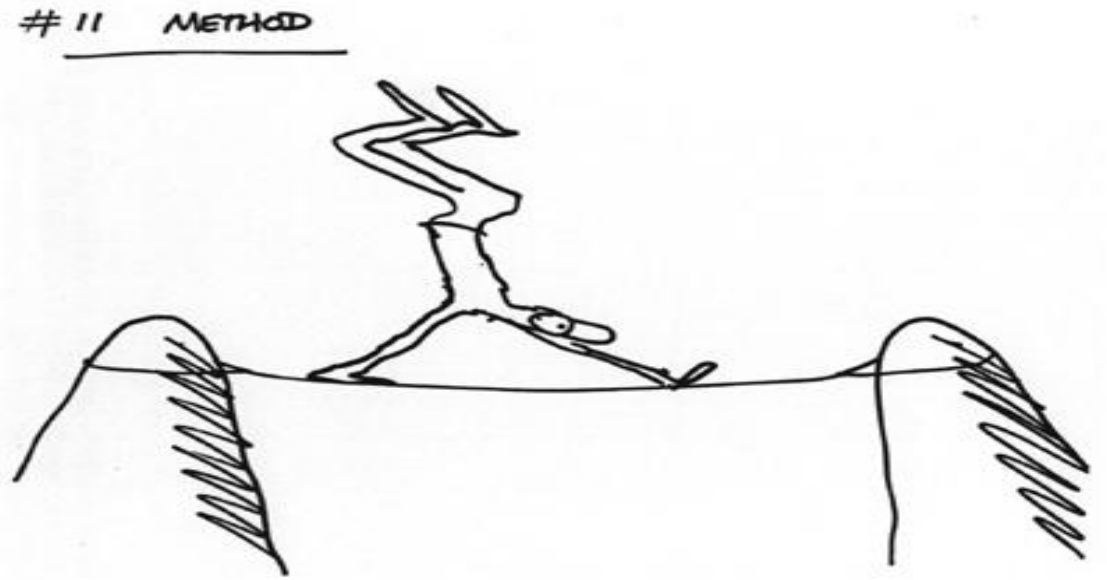


© Copyright 2015 Executive Education – School of Business The American University in Cairo. All Rights Reserved

10. **Eliminate slogans, exhortations, and targets for the work force** asking for zero defects and new levels of productivity.

© Copyright 2015 Executive Education – School of Business The American University in Cairo. All Rights Reserved

11. Remove barriers that rob the hourly worker of his right to pride of workmanship.

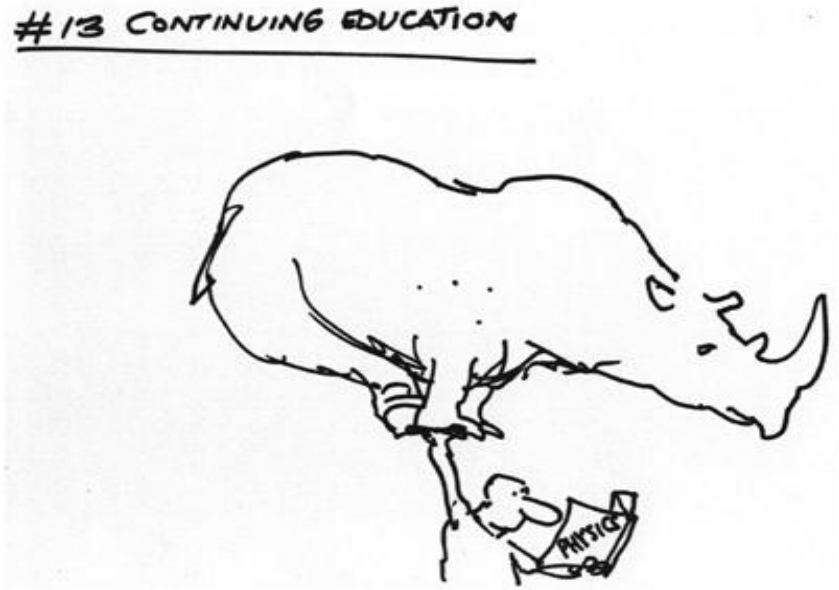


© Copyright 2015 Executive Education – School of Business The American University in Cairo. All Rights Reserved

12. Remove barriers that rob people in management and in engineering of their right to pride of workmanship.

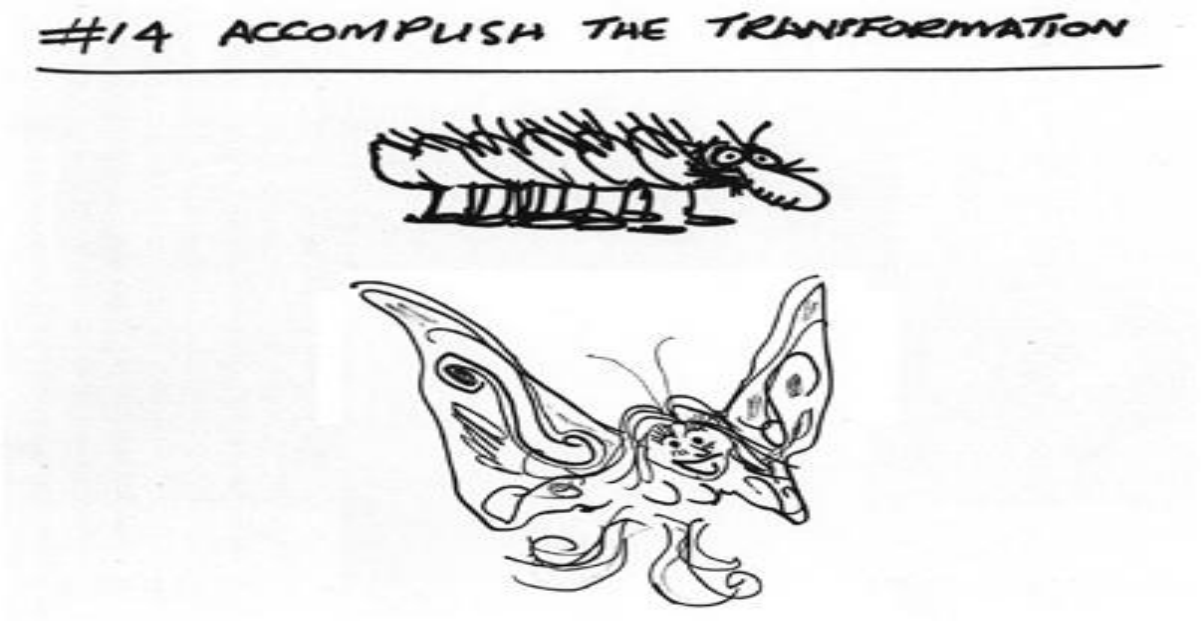
© Copyright 2015 Executive Education – School of Business The American University in Cairo. All Rights Reserved

13. Institute a vigorous program of education and self-improvement.



© Copyright 2015 Executive Education – School of Business The American University in Cairo. All Rights Reserved

14. Put everybody in the company to work to accomplish the transformation. The transformation is everybody's job.



© Copyright 2015 Executive Education – School of Business The American University in Cairo. All Rights Reserved

ONE PAGE EXCERCISE

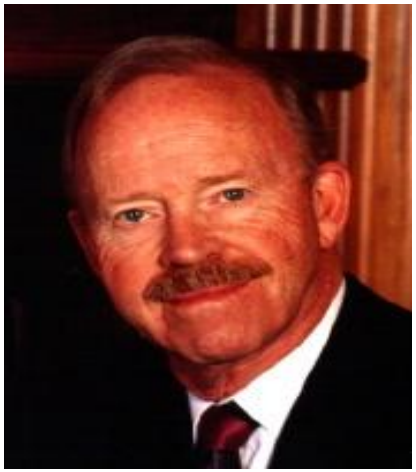
Q. 1 :

Demonstrate 2 points of Deming you support as the most important & JUSTIFY WHY ?

© Copyright 2015 Executive Education – School of Business The American University in Cairo. All Rights Reserved

Philip B. Crosby

- Corporate V.P. for quality at International Telephone
- Authored book entitled **Quality is Free**
- Believed that zero defects is a realistic goal
- Defined the cost of quality as:
  - Expense of nonconformance



© Copyright 2015 Executive Education – School of Business The American University in Cairo. All Rights Reserved

Phillip B. Crosby

Quality is free . . .

"Quality is free. **It's not a gift**, but it is free. What costs money are the un-quality things -- all the actions that involve not doing jobs right the first time."

© Copyright 2015 Executive Education – School of Business The American University in Cairo. All Rights Reserved

The Zero Defects concept

- The Zero Defects concept is based on the fact that mistakes are caused by two things:

1. lack of knowledge and
2. lack of attention

- Zero Defects is not a motivation method, it is a performance standard.

© Copyright 2015 Executive Education – School of Business The American University in Cairo. All Rights Reserved

- **In Quality Without Tears**, Crosby adds new layers to his original philosophy.
- He offers these fourteen steps for quality improvement in teams:

© Copyright 2015 Executive Education – School of Business The American University in Cairo. All Rights Reserved

Crosby: Absolutes of Quality

1. Quality is conformance to requirements
2. The system of quality is prevention
3. The performance standard is zero defects
4. The measurement of quality is the price of non-conformance

© Copyright 2015 Executive Education – School of Business The American University in Cairo. All Rights Reserved

Crosby's 14 steps

1. **Management commitment :**

- This requires a specific management policy on quality. Quality must be the first item on the agenda at every regular status meeting.
- The manager must carry a speech on quality in his head and deliver it at every opportunity.

© Copyright 2015 Executive Education – School of Business The American University in Cairo. All Rights Reserved

2. The quality improvement team:

The purpose of the team is to guide the process and help it along. It is not to clear each action beforehand , or to hold things back .

© Copyright 2015 Executive Education – School of Business The American University in Cairo. All Rights Reserved

3. Measurement:

Many people see measurement as the ultimate hassle مشاحنة, in organizations based on hassle. But the real hassle begins when no one knows how well you are really doing.

© Copyright 2015 Executive Education – School of Business The American University in Cairo. All Rights Reserved

4. Cost of quality:

To determine the cost of quality, be sure you are measuring the same thing all the time, throughout the company. **The tendency is for each area to try to limit its cost.**

© Copyright 2015 Executive Education – School of Business The American University in Cairo. All Rights Reserved

Cost of Quality (COQ)

Prevention	Appraisal	Internal Failures	External Failures
COST OF GOOD QUALITY (COGQ)		COST OF POOR QUALITY (COPQ)	
▪Planning ▪Design Review ▪Training ▪Process Control ▪Process Improvement ▪System Auditing 1 $	▪Supplier Inspection ▪Product Inspecting/Checking ▪Product Testing ▪Measurement System Validation ▪Product Auditing 10 $	▪Rework ▪Re-inspecting ▪Re-testing ▪Yield Losses 100 $	▪Customer Returns ▪Complaint Adjustments ▪Warranty Charges ▪Customer Loss ▪Image & Reputation Loss 1,000- 10,000 $

© Copyright 2015 Executive Education – School of Business The American University in Cairo. All Rights Reserved

5. Quality awareness:

Awareness must begin at the management level: "When conformance to requirements becomes part of the lexiconمعجم of the company, then it begins to take effect."

© Copyright 2015 Executive Education – School of Business The American University in Cairo. All Rights Reserved

6. Corrective action:

The common problem with 'corrective action" is that people don't understand what the term means.

© Copyright 2015 Executive Education – School of Business The American University in Cairo. All Rights Reserved

7. Zero Defects planning:

- Zero Defects is a major step forward and is not something to announce suddenly.
- The process should begin a year and a half ahead of time. It should be serious, dignified جليل, and without hype الضجيج .

© Copyright 2015 Executive Education – School of Business The American University in Cairo. All Rights Reserved

8. Employee education & Supervisor Training:

Eventually all supervisors will be tuned into the program and realize its value for themselves. Then they will concentrate their actions on the program.

© Copyright 2015 Executive Education – School of Business The American University in Cairo. All Rights Reserved

9. Zero Defects Day:

The day is not the time to get the employees to stand up and promise to improve; **it is the time to ask the management to stand up for all to see:**

Many people rarely have exciting days at work . . . A well-planned, dignified, Zero Defects Day on which management understands what it is talking about is a delight that will be remembered forever.

© Copyright 2015 Executive Education – School of Business The American University in Cairo. All Rights Reserved

10. Goal-setting:

Measurement leads directly to goal setting. **"The ultimate goal, of course, is Zero Defects" but intermediate goals are necessary to move you in that direction.** Ideally, the group chooses the goals and follows its progress **on a chart**.

© Copyright 2015 Executive Education – School of Business The American University in Cairo. All Rights Reserved

11. Error-cause removal:

People simply state what problems they are having. **It is not a suggestion system** in which the employee has to give the answer to the problem

© Copyright 2015 Executive Education – School of Business The American University in Cairo. All Rights Reserved

12. Recognition:

Recognize people who can serve as **"beacons** منارات." These are the people who shine so brightly that they help keep everyone heading in the right direction:

Many managers feel, somewhat cynically بسخرية , that people are being paid to do their jobs and that's that. **This attitude reflects an insensitivity to people that is a trademark of many managers**.

© Copyright 2015 Executive Education – School of Business The American University in Cairo. All Rights Reserved

13. Quality councils:

Quality professionals get together to learn from each other and to support the improvement process.

© Copyright 2015 Executive Education – School of Business The American University in Cairo. All Rights Reserved

14. Do it all over again :

After two years or less, a new quality team takes over with perhaps one continuing member. In all likelihood, the new team "takes off on many new tacks, develops many new ways of doing things, and causes even more improvement than happened the first time."

© Copyright 2015 Executive Education – School of Business The American University in Cairo. All Rights Reserved

Crosby concludes:

This is all the result of learning, and of watching and participating.

As quality improvement becomes more and more an enduring way of life, as it becomes the culture of the company, the process gains speed and permanence.

© Copyright 2015 Executive Education – School of Business The American University in Cairo. All Rights Reserved

ONE PAGE EXCERCISE

Q. 1 :

Demonstrate 2 steps of Crosby you support as the most important & JUSTIFY WHY ?

Q. 2 :

Whom you prefer Deming or Crosby…… WHY ?

© Copyright 2015 Executive Education – School of Business The American University in Cairo. All Rights Reserved

Logistics (Forward)

"Process of planning, implementing and controlling the efficient, cost-effective flow of raw materials, in-process inventory, finished goods and related information from the point of origin to the point of consumption for the purpose of conforming to customer requirements"

Council of Logistics, 1988 -

© Copyright 2015 Executive Education – School of Business The American University in Cairo. All Rights Reserved

Key Logistics Activities

1. Customer service standards
2. Transportation
3. Inventory management
4. Warehousing
5. Materials handling
6. Purchasing
7. Protective packaging
8. Information maintenance

© Copyright 2015 Executive Education – School of Business The American University in Cairo. All Rights Reserved

Reverse Logistics

"Process of planning, implementing and controlling the efficient, cost-effective flow of raw materials, in-process inventory, finished goods and related information from the point of consumption to the point of origin for the purpose of recapturing value or proper disposal"

- Rogers and Tibben-Lembke -

© Copyright 2015 Executive Education – School of Business The American University in Cairo. All Rights Reserved

Supply chain management (SCM)

Is management of a network of interconnected businesses involved in the provision of product and service packages required by the end customers in a supply chain. Supply chain management spans all movement and storage of raw materials, work-in-process inventory, and finished goods from point of origin to point of consumption .

© Copyright 2015 Executive Education – School of Business The American University in Cairo. All Rights Reserved

Formal Assignment 3

Flexit International, Case Study

Identify the main challenges, root-cause analysis and the best alterative strategy

- Each participant will bring a HARD COPY Next Session

© Copyright 2015 Executive Education – School of Business The American University in Cairo. All Rights Reserved

Informal assignment 3
(to be sent by MAIL ONLY+ Individual)

Please Read & Demonstrate Briefly :

- ✓ Juran's Trilogy
- ✓ Risk Management
- ✓ Swiss Cheese Model

© Copyright 2015 Executive Education – School of Business The American University in Cairo. All Rights Reserved